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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/766,527 | 01/29/2004 | Itai Bab | 31949-200571 | 2819 |

26694 7590 10/30/2006

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| EXAMINER |
|---|
| BARNHART, LORA ELIZABETH |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1651 | |

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/766,527 | BAB ET AL. | |
| | Examiner | Art Unit | |
| | Lora E. Barnhart | 1651 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) *5-7 and 38-45* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-37 and 46-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/29/04, 8/20/04, 2/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

Claims 1-48 are pending. Claims 5-7 were withdrawn from consideration in a previous Office action.

### *Election/Restrictions*

Applicant's election without traverse of Group I, claims 1-37 and 46-48, in the reply filed on 9/29/06 is acknowledged. Claims 38-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/29/06.

Applicant's election with traverse of the species "hematological disorders" and "myeloproliferative disorders" in the reply filed on 9/30/06 is acknowledged. The traversal is on the ground(s) that the disorders recited in the claims "are connected by a single inventive concept" (Reply, page 2, paragraph 2). This is not found persuasive because unity of invention is not a consideration in U.S. restriction and election practice. The only consideration in U.S. practice is whether the species are distinct from each other; applicant has provided no substantive arguments to the examiner's assertion that the species are distinct.

The requirement is still deemed proper and is therefore made FINAL.

Examination on the merits will commence on claims 1-4, 8-37, and 46-48 ONLY, to the extent they read on the elected species where applicable. Applicant's election without traverse of the species "Tyr-Gly-Phe-Gly-Gly (SEQ ID NO:1)" in the reply filed on 6/29/06 is still in effect over these claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-10, 12-17, 19-21, 25-37, and 46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Bab et al. (1995, WO 95/00166; 1/29/04 IDS reference AC). The claims are interpreted for this rejection only as being drawn to various methods comprising administering a peptide with the sequence Tyr-Gly-Phe-Gly-Gly (SEQ ID NO:1; "YGFGG") to a subject or exposing cells to YGFGG. In some dependent claims, the subject has undergone or is undergoing irradiation or has a hematological condition.

Bab et al. teach administering YGFGG in phosphate buffered saline (PBS) to mice once a day for twelve days; on day 8, the mice were treated with a single X-ray radiation, and on day 14, the mice were sacrificed and their bone marrow isolated into PBS (Example 2; page 14, lines 7-26). Bab et al. further teach that the administration of YGFGG to mice stimulated the production of bone marrow cells (page 14, line 29, through page 15, line 5).

The discovery of a new use for an old structure based on unknown properties of the structure *might* be patentable to the discoverer as a process of using. *In re Hack*, 245 F.2d 246, 248, 114 USPQ 161, 163 (CCPA 1957). However, when the claim recites

using an old composition or structure and the "use" is directed to a result or property of that composition or structure, then the claim is anticipated. *In re May*, 574 F.2d 1082, 1090, 197 USPQ 601, 607 (CCPA 1978) and *In re Tomlinson*, 363 F.2d 928, 150 USPQ 623 (CCPA 1966). See M.P.E.P. § 2112.02.

Bab et al. teach administering YGFGG to mice (Example 2). While Bab et al. do not teach all of the effects recited in claims 1, 8, 13, 15, 19, 25, 26, 28, 29, 30, 37, 46, and 48, they do perform the same administration of YGFGG as in the present application (Examples 1, 3, and 4; paragraphs 00157, 00159, and 00160). Because the method steps (i.e. administration of YGFGG, which is termed "OGP(10-14)" in the instant application) are the same, Bab et al. inherently teach the same effects as those recited in claims 1, 8, 13, 15, 19, 25, 26, 28, 29, 30, 37, 46, and 48. Bab et al. therefore anticipates the effects recited in claims 1, 8, 13, 15, 19, 25, 26, 28, 29, 30, 37, 46, and 48 as instantly claimed.

To invalidate a patent by anticipation, a prior art reference normally needs to disclose each and every limitation of the claim. See *Standard Havens Prods., Inc. v. Gencor Indus., Inc.*, 953 F.2d 1360, 1369, 21 USPQ2d 1321, 1328 (Fed. Cir. 1991). However, a prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it. See *id.* and *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 630, 2 USPQ2d 1051,1053 (Fed. Cir. 1987). Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates. See *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). **Inherency is not necessarily**

**coterminous with the knowledge of those of ordinary skill in the art.** See *Titanium Metals*, 778 F.2d at 780. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art. See *id.* at 782. However, the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer. See *id.* at 782 ("Congress has not seen fit to permit the patenting of an old [composition], known to others..., by one who has discovered its...useful properties."); *Verdegaal Bros.*, 814 F.2d at 633.

This court's decision in *Titanium Metals* illustrates these principles. See *Titanium Metals*, 778 F.2d at 775. In *Titanium Metals*, the patent applicants sought a patent for a titanium alloy containing various ranges of nickel, molybdenum, iron, and titanium. The claims also required that the alloy be "characterized by good corrosion resistance in hot brine environments." *Titanium Metals*, 778 F.2d at 776. A prior art reference disclosed a titanium alloy falling within the claimed ranges, but did not disclose any corrosion-resistant properties. This court affirmed a decision of the PTO Board of Appeals finding the claimed invention unpatentable as anticipated. This court concluded that the claimed alloy was not novel, noting, "it is immaterial, on the issue of their novelty, what inherent properties the alloys have or whether these applicants discovered certain inherent properties." *Id.* at 782. This same reasoning holds true when it is not a property, but an ingredient, which is inherently contained in the prior art. The public remains free to make, use, or sell prior art compositions or processes, regardless of whether or not they understand their complete makeup or the underlying

scientific principles which allow them to operate. The doctrine of anticipation by inherency, among other doctrines, enforces that basic principle." See *Atlas Powder Co. v. IRECO Inc.*, 51 USPQ2d 1943 (Fed. Cir. 1999).

Thus, a reference may be anticipatory if it discloses every limitation of the claimed invention either explicitly or inherently. A reference includes an inherent characteristic if that characteristic is the natural result flowing from the reference's explicitly explicated limitations. *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1269, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

In the instant case, the effects recited in claims 1, 8, 13, 15, 19, 25, 26, 28, 29, 30, 37, 46, and 48 flow from the administration of YGFGG to mice. The fact that Bab et al. did not necessarily recognize each and every effect of said administration does not render the administration itself patentable.

Furthermore, Bab et al. anticipates claims 2, 3, 12, 14, 27, 31-36, and 47 because these dependent claims do not further limit the steps recited within their respective independent claims *per se*, but rather describe effects of the steps. Therefore Bab et al. anticipates these effects for the reasons discussed above. Claims 19, 25, 26, and 29 require "exposing" cells to YGFGG, which is anticipated by the administration to mice taught by Bab et al. because the term "exposing" does not particularly limit the manner in which the cells and the peptide interact, if at all. The term "exposing" does not, for example, require that the cells be cultured *in vitro* and contacted directly with YGFGG. Claims 9 and 30 require that the subject be undergoing irradiation; on day 8 of the method of Bab et al., the mice both irradiated and injected with YGFGG. Claims 20

and 21 require that the subject be suffering from a hematological disorder; this aspect is anticipated by the irradiated mice of Bab et al., which display low numbers of bone marrow cells (page 15, lines 1-2). Claim 28 requires obtaining "a sufficient amount" of stem cells from the treated subject, but since the claim does not particularly define any criteria for including a particular number of cells and excluding another or a requirement that the stem cells be purified to homogeneity, this claim is anticipated by the bone marrow isolation of Bab et al. (page 14, lines 22-23).

Claims 1-4, 8, 10, 12-17, 19, 25-27, 29, 31-37, and 46-48 are rejected under 35 U.S.C. 102(a) as being anticipated by Chen et al. (2000, *Journal of Peptide Research* 56: 147-156; reference AD on 1/29/04 IDS). The claims are interpreted for this rejection only as being drawn to various methods comprising administering a peptide comprising the sequence Tyr-Gly-Phe-Gly-Gly (SEQ ID NO:1; "YGFGG") to a subject or exposing cells to YGFGG. In some dependent claims, the subject has undergone or is undergoing irradiation or has a hematological condition.

Chen et al. teach administering YGFGG ("OGP(10-14)") in phosphate buffered saline (PBS) to mice (page 155, column 1).

Furthermore, Chen et al. anticipates claims 2, 3, 12, 14, 27, 31-36, and 47 because these dependent claims do not further limit the steps recited within their respective independent claims *per se*, but rather describe effects of the steps. Therefore Bab et al. anticipates these effects for the reasons discussed above. Claims 19, 25, 26, and 29 require "exposing" cells to YGFGG, which is anticipated by the administration to

mice taught by Bab et al. because the term "exposing" does not particularly limit the manner in which the cells and the peptide interact, if at all. The term "exposing" does not, for example, require that the cells be cultured *in vitro* and contacted directly with YGFGG.

Claims 1-4, 8-10, 12-17, 19-21, 25-37, and 46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Gurevitch et al. (1996, *Blood* 88: 4719-4724; reference A31 on 8/20/04 IDS) taken in light of Bab et al. (1999, *Journal of Peptide Research* 54: 408-414; reference A12 on 8/20/04 IDS). The claims are interpreted as being drawn to various methods comprising administering a peptide comprising the sequence Tyr-Gly-Phe-Gly-Gly (SEQ ID NO:1; "YGFGG") to a subject or exposing cells to YGFGG. In some dependent claims, the subject has undergone or is undergoing irradiation or has a hematological condition.

Gurevitch et al. teach administering OGP in phosphate buffered saline (PBS) to mice once a day for twelve days; on day 8, the mice were treated with a single myeloablative X-ray irradiation, and on day 14, the mice were sacrificed and their bone marrow isolated into PBS (page 4720, column 1). Gurevitch et al. further teach that the administration of OGP to mice stimulated the production of bone marrow cells (Table 3; Figure 1). Bab et al. (1999) is cited as evidence that OGP has the sequence ALKRQGRTLYGFGG (page 409, column 1, paragraph 2).

It is noted that claims 1, 8, 13, 15, 19, 25, 26, 28, 29, 37, 46, and 48 require administration of "an oligopeptide **having** the amino acid sequence of [YGFGG]."

Transitional phrases such as "having" must be interpreted in light of the specification to determine whether open or closed claim language is intended. The transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim. The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, *e.g.*, *Invitrogen Corp. v. Biocrest Mfg.*, L.P., 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003). The transition "comprising" in a method claim indicates that the claim is open-ended and allows for additional step. See M.P.E.P. §2111.03. In this case, the specification describes both an oligopeptide comprising the elected YGFGG species (for example, at page 5, paragraph 0009) and a short peptide consisting of the YGFGG sequence (for example, at page 5, paragraph 0010). Because the specification does not explicitly teach that "having" means "consisting of," "having" has been interpreted as "comprising."

The discussion of inherent disclosure as applied to Bab et al. (WO 95/00166) also applies to this ground of rejection for the same reasons as discussed above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8, 11, 15, 18, 20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bab et al. (WO 95/00166) taken in view of Takayama et al. (1999, U.S. Patent 5,910,303; reference A). The claims are interpreted as being drawn to various methods comprising administering a peptide comprising the sequence Tyr-Gly-Phe-Gly-Gly (SEQ ID NO:1; "YGFGG") to a subject or exposing cells to YGFGG. In some dependent claims, the subject has a myeloproliferative disorder, in some cases idiopathic myelofibrosis.

The teachings of Bab et al. are relied upon as discussed above. Bab et al. do not teach treating myeloproliferative disorders or specifically increasing circulating early CD34+ stem cells or colony forming units (CFUs) in subjects with myeloproliferative disorders.

Takayama et al. teach treating myeloproliferative disorders, including myelofibrosis, with an agent that promotes platelet and leukocyte production and reversing the damage to bone marrow caused by radiation therapy (column 12, Examples 1 and 2).

A person of ordinary skill in the art would have had a reasonable expectation of success in treating myeloproliferative disorders, including myelofibrosis, with the YGFGG of Bab et al. because Bab et al. teach that YGFGG stimulates bone marrow cell production and subsequent repopulation of the immune system (page 14, line 29, through page 15, line 5). The skilled artisan would have been motivated to so modify the invention for the expected benefit of treating myelofibrosis in a patient.

It would therefore have been obvious to a person of ordinary skill in the art at the time the invention was made to treat myeloproliferative disorders, including myelofibrosis, with the YGFGG of Bab et al. because Bab et al. teach that YGFGG stimulates repopulation of the immune system and because Takayama et al. teach that such repopulation treats myeloproliferative disorders, including myelofibrosis.

Therefore, the invention as a whole would have been *prima facie* obvious to a person of ordinary skill at the time the invention was made.

Claims 8, 11, 15, 18, 20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurevitch et al. taken in view of Bab et al. (1999) and Takayama et al. The claims are interpreted as being drawn to various methods comprising administering a peptide comprising the sequence Tyr-Gly-Phe-Gly-Gly (SEQ ID NO:1; "YGFGG") to a subject or exposing cells to YGFGG. In some dependent claims, the subject has a myeloproliferative disorder, in some cases idiopathic myelofibrosis.

The teachings of Gurevitch et al. and Bab et al. (1999) are relied upon as discussed above. Gurevitch et al. and Bab et al. (1999) do not teach treating

myeloproliferative disorders or specifically increasing circulating early CD34+ stem cells or colony forming units (CFUs) in subjects with myeloproliferative disorders.

Takayama et al. teach treating myeloproliferative disorders, including myelofibrosis, with an agent that promotes platelet and leukocyte production and reversing the damage to bone marrow caused by radiation therapy (column 12, Examples 1 and 2).

A person of ordinary skill in the art would have had a reasonable expectation of success in treating myeloproliferative disorders, including myelofibrosis, with the OGP of Gurevitch et al. because Gurevitch et al. teach that OGP stimulates bone marrow cell production and subsequent repopulation of the immune system (Table 3 and Figure 1). The skilled artisan would have been motivated to so modify the invention for the expected benefit of treating myelofibrosis in a patient.

It would therefore have been obvious to a person of ordinary skill in the art at the time the invention was made to treat myeloproliferative disorders, including myelofibrosis, with the OGP of Gurevitch et al. because Gurevitch et al. teach that OGP stimulates repopulation of the immune system and because Takayama et al. teach that such repopulation treats myeloproliferative disorders, including myelofibrosis.

Therefore, the invention as a whole would have been *prima facie* obvious to a person of ordinary skill at the time the invention was made.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 8, 12-15, 19, 25-29, 31-36, and 46-48 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 20 of U.S. Patent No. 5,814,610, which shares six inventors with the instant application. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are all drawn to methods of administering the same peptide (YGFGG) to patients.

As discussed above in the rejections under 35 U.S.C. § 102, independent claims 1, 8, 13, 15, 19, 25, 26, 28, 29, 46, and 48 are drawn to methods of treating various hematological conditions and enhancing various hematological factors, *e.g.* the number of circulating stem cells, in "a subject in need thereof" by administering a peptide comprising YGFGG to the subject. Claim 20 of the '610 patent is drawn to a method of treating various osteological conditions in a human or animal by administering to said human or animal a pentapeptide having the sequence YGFGG. Since all humans and

animals (the scope of claim 20 of the '610 patent) require a healthy immune system, all humans and animals fall within the scope of "subject in need thereof" (the scope of many claims in the instant application). Therefore, the scope of claim 20 of the '610 patent is completely encompassed by the scope of the cited instant claims. The cited dependent claims in the instant application are included in this rejection because, as discussed at length above in the rejection under 35 U.S.C. § 102, they describe inherent effects of the administration of YGFGG and do not limit the method *per se* by requiring additional active process steps.

***No claims are allowed. No claims are free of the art.***

Applicant should specifically point out the support for any amendments made to the disclosure in response to this Office action, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP § 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 U.S.C. § 102 or 35 U.S.C. § 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is requested to provide a list of all copending U.S. applications that set forth similar subject matter to the present claims. A copy of such copending claims is requested in response to this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lora E. Barnhart whose telephone number is 571-272-1928. The examiner can normally be reached on Monday-Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 571-272-0926. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SANDRA E. SAUCIER
PRIMARY EXAMINER

Lora E Barnhart

leb